R E P O R T R E S U M E S

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NOVA HIGH SCHOOL--DESCRIPTION OF TENTH-GRADE SOCIAL STUDIES COURSE.

BY- COGSWELL, J.F.
SYSTEM DEVELOPMENT CORP., SANTA MONICA, CALIF.

REPORT NUMBER NDEA-VIIA-1130-12 PUB DATE 23 FEB 66
REPORT NUMBER BR-5-0738-12
REPORT NUMBER TM-1493/14/00
GRANT OEG-7-14-9120-217
EDRS PRICE MF-$0.09 HC-$0.56 14P.

DESCRIPTORS- *SOCIAL STUDIES UNITS, *INSTRUCTIONAL INNOVATION, GRADE 10, HIGH SCHOOL ORGANIZATION, AMERICAN HISTORY, *SYSTEMS ANALYSIS, *SIMULATION, *COURSE ORGANIZATION, COURSE CONTENT, SANTA MONICA, CALIFORNIA, FORT LAUDERDALE, FLORIDA

SYSTEMS ANALYSIS AND COMPUTER SIMULATION TECHNIQUES WERE APPLIED IN A STUDY OF INNOVATION FOR A 10TH-GRADE SOCIAL STUDIES COURSE. THE COURSE CONTENT WAS AMERICAN HISTORY WHICH WAS DIVIDED INTO 10 CONTENT AREAS SUCH AS COLONIAL, REVOLUNTIONARY, AND CONSTITUTIONAL AMERICAN. THE ACTIVITIES OF THE COURSE INCLUDED TEAM TEACHING, LECTURES, MEDIA PRESENTATIONS, GROUP STUDY, UNIT QUIZZES, AND INDIVIDUAL STUDY. DESCRIPTIONS WERE PRESENTED OF (1) SPECIAL STUDY SUBGROUPS AND SEMINAR GROUPS, (2) THE MEDIA USED IN THE GROUPS, (3) INFORMATION AND RECORD PROCESSING PROCEDURES, AND (4) THE USE OF SCHOOL SPACE. RELATED REPORTS ARE ED 010 568 AND ED 010 570. (RS)

ED010569

VII A - 1130
(S-0738)

The research reported herein was conducted under SDC's independent research program and supported in part by Grant 7-14-9120-217 from the Office of Education, U. S. Department of Health, Education, and Welfare.

TECH MEMO

a working paper

System Development Corporation/2500 Colorado Ave./Santa Monica, California 90406

TM- 1493/141/00

AUTHOR J. F. Cogswell

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RELEASE H. F. Silberman

for J. I. Schwartz

DATE 2/23/66 PAGE 1 OF 12 PAGES

Nova High School: Description of Tenth-Grade Social Studies Course

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ABSTRACT

This Tech Memo is the second in a series of three reporting the work done with Nova High School in connection with the study New Solutions to Implementing Instructional Media Through Analysis and Simulation of School Organization. In this document, the 10th-grade social studies course is described as an instructional system.

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I. INTRODUCTION

This section provides a detailed system description of one course as a microcosm of educational innovation at Nova High School. The dynamic nature of the Nova complex with its emphasis on experimentation and its focus on innovation as a vehicle for achieving quality education makes it impossible to select any single course as representative. Not only is variation to be expected between courses and departments, but also change in system operation is to be expected to occur within each course. Each of the courses is still in the developmental stage. Course materials, information processing procedures, and organizational provisions are continually being planned, evaluated, and revised. Innovations of instructional media are tried and used dynamically; in addition, the roles of professionals and paraprofessionals in the instructional process are continually being redefined.

II. DISCUSSION

A. OVERALL DESCRIPTION OF THE COURSE

The content of the 10th-grade social studies course is American History. There are four sections in the course. Section A, which has 64 students, meets during the first hour of class. Section B, which has 99 students, meets during the third hour of class. Section C, which has 66 students, meets during the sixth hour. Section D, which has 57 students, meets during the first hour, the same time as Section A.

The course is divided into 10 content areas such as the following: Colonial America, Revolutionary America, Constitutional America, etc.

The course was organized on a Continuous Progress Plan the previous year. Students were required to attend the lectures as a total group, but were free to work at their own pace during the time allotted to individual study and in their homework time. The teacher lectures were recorded on audio tape so that students who were absent or needed to review could call up the tapes for playback in one of the individual study carrels of the learning resource center. It was the feeling of the instructional staff that the audio playback was less effective than listening to the lectures because the students would not have the benefit of the visuals.

Students scheduled tests on an individual basis. The tests, which were objective, were administered and scored by a teaching aid in the teacher office area.

Students were required to take a progress quiz before they scheduled the test on the unit. They were required to obtain a score of four (a score of four indicates that the student had answered 50% of the test items correctly) out of a possible score of nine before they were allowed to take the unit test. If they obtained a score of three on the first test, they were required to obtain a score of four on a second progress quiz before scheduling the unit test. A score of four was also required on the unit test before the students were allowed to continue to the next unit.

Although a large majority of the class tended to move at the same rate, the spread between the extremes increased as a function of time. At the end of the year, some students were three or four units ahead of the majority of the class. The increased spread placed more and more demand on the resources, so that tests and assignments had to be prepared ahead for the total course. The large number of students, the relatively low student/teacher ratio of 1/50, the lack of materials, and the resources to produce the materials in sufficient time to meet the demands necessitated discontinuance of the Continuous Progress Plan for the

10th-year social studies course. However, the interface between the ninth-year World History course which was operating on the Continuous Progress Plan and the 10th-year American History course which is organized in the more traditional lockstep manner produced one problem. About a third of the students entering the 10th-grade course had not completed the requirements of the ninth-grade course. These students were placed in the American History course and the teachers were instructed to give them work in both World History and American History. Eighteen of these students were so far behind that it was necessary to form a special subgroup and to reduce the amount of work expected of them in the two courses.

Although the school could not continue use of the Continuous Progress Plan in social studies, current practice still utilizes some fairly innovative features as far as scheduling of class periods and presentation of materials is concerned.

Each senior high social studies course meets four times a week. Each class meeting lasts for 70 minutes. Figure 1 shows the general flow of activities in the course. If a teaching team consisting of the section teacher and a second teacher, or a teaching aide acting as a teaching assistant, are present, the teacher introduces the work for the day and the teaching assistant takes attendance (Box 1). If only the teacher is present, he takes the attendance first and then introduces the work (Boxes 2 and 3). Following the introduction of the work to be done, one of five types of activity follows: a lecture by the teacher that usually lasts for 20 to 30 minutes (Box 4); a presentation mediated by a nonhuman agent such as a video tape presentation; a television broadcast via the closed circuit television (CCTV); a 16 mm film via projector or CCTV; a filmstrip via projector or CCTV; an audio tape distributed via the Dialog System (Box 5); a progress quiz on a unit test by the class (Box 6); work in small groups consisting of approximately 16 students (Box 7); or work in independent study (Box 8). If time is still remaining following any one of these activities, the students may be either assigned to or continue to work in small group work (Box 9) or independent study (Box 10). Five minutes before the end of the hour, all students report back to the classroom where the period is closed.

Two lectures or a film and a lecture are usually presented each week.

Table 1 shows the estimated amounts of time that are devoted to each of the major activities. In the first row the estimated average time for each of the activities is shown. The estimated frequencies are shown in the second row. The third row shows the estimated amount of time devoted to each activity during a four-week period. (The four-week period is used as the average length of time for a unit of work based on the fact that there are 40 weeks in a school year and 10 units of work in the course. Each of the major activities should occur at least once in a unit of work.) The total amount of course time per unit is

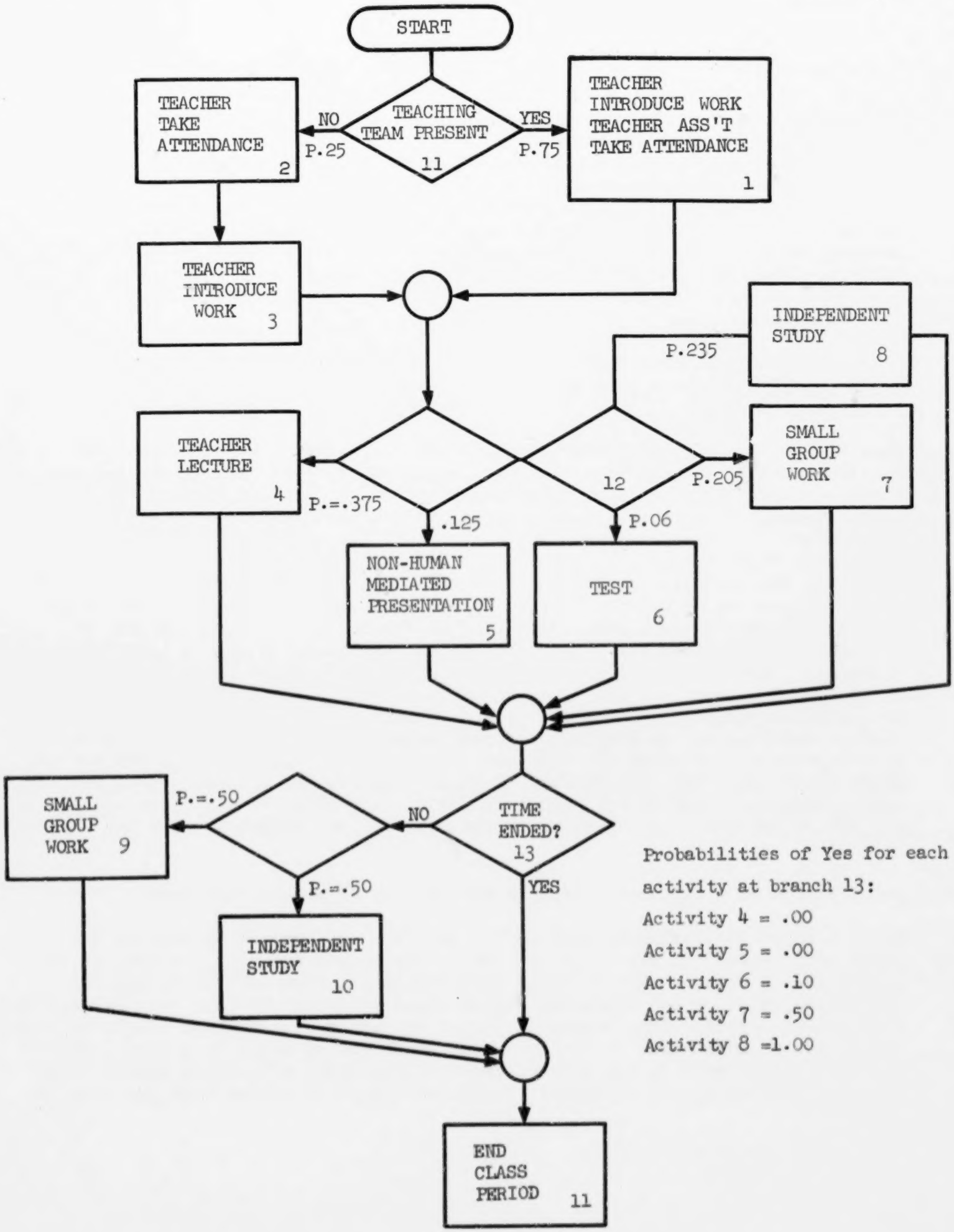

Figure 1. General Flow of Activities in Tenth Year Soc. Studies Course

Table 1. Estimate Amount of Time Devoted to Major Activities of 10th-Grade Social Studies Course

	Attend-ance	Lecture	Nonhuman Mediated Group Presentation	Small Group Work	Indepen-dent Study	Testing	Course Ending	Extra Misc.
Average Time for Each Activity (Min.)	5	20	15	40	40	35	5	
Frequency of Activity four-week period	16	8	2	7	8	2	16	
Total Time of Each Activity four-week period	80	160	30	280	320	70	80	100
Percent of time Spent in Each Activity four-week period	7%	14%	3%	25%	29%	6%	7%	9%

70 x 16 = 1120 minutes. The fourth row contains the percentage of the total course time devoted to each of the major activities. The eighth column includes the time devoted to miscellaneous categories of activity such as school announcements, holidays, and special programs.

The probabilities of occurrence associated with each of the major activities is shown in Figure 1 at each of the branch points. (These figures will be used in the computer simulation study of the course.)

Three kinds of activities may occur in group work: group discussion, group research projects, and academic games. Figure 2 shows the flow of activities and the associated probabilities of occurrence in small group work. Five of the 40 weeks were spent on the academic games. Approximately half of the remaining time in group work was divided equally between group research and group discussion.

Figure 3 shows the procedures used in group research work. The usual procedure is to divide each of the course sections into four groups for group work. The size of the groups generally varies from 16 to 25 students. Because of the large number of students and the limited resources in the learning center, each group must assign a representative to perform the reference work for the group. All group work is usually conducted at the same time. Each group is required to elect a recorder whose responsibility is to keep a log of the groups' activities and its conclusions. The groups may or may not elect a chairman depending upon the group desire.

The teacher or teachers rotate from group to group during the time that is devoted to group work. The teacher tends to function as a resource person at this time rather than taking active control of the activity. Instruction at the beginning of the semester is devoted to teaching group skills and group responsibilities.

During independent study time, students usually stay in the classroom and work on their own individual assignments. The teacher or teachers are available at this time to provide individual help to those students who need it.

B. SPECIAL SUBGROUPS--SEMINAR GROUPS

Special groups that are designed to allow more intensive study in depth are formed in 10th-year Social Studies course. One of these groups is formed for each of the four sections. Each seminar group consists of approximately six or seven students. The teachers select students whose records indicate special interest and/or ability for work in social studies. These students are asked if they want to participate in a seminar group. Students who are given these invitations may choose not to participate. If a student does not choose to

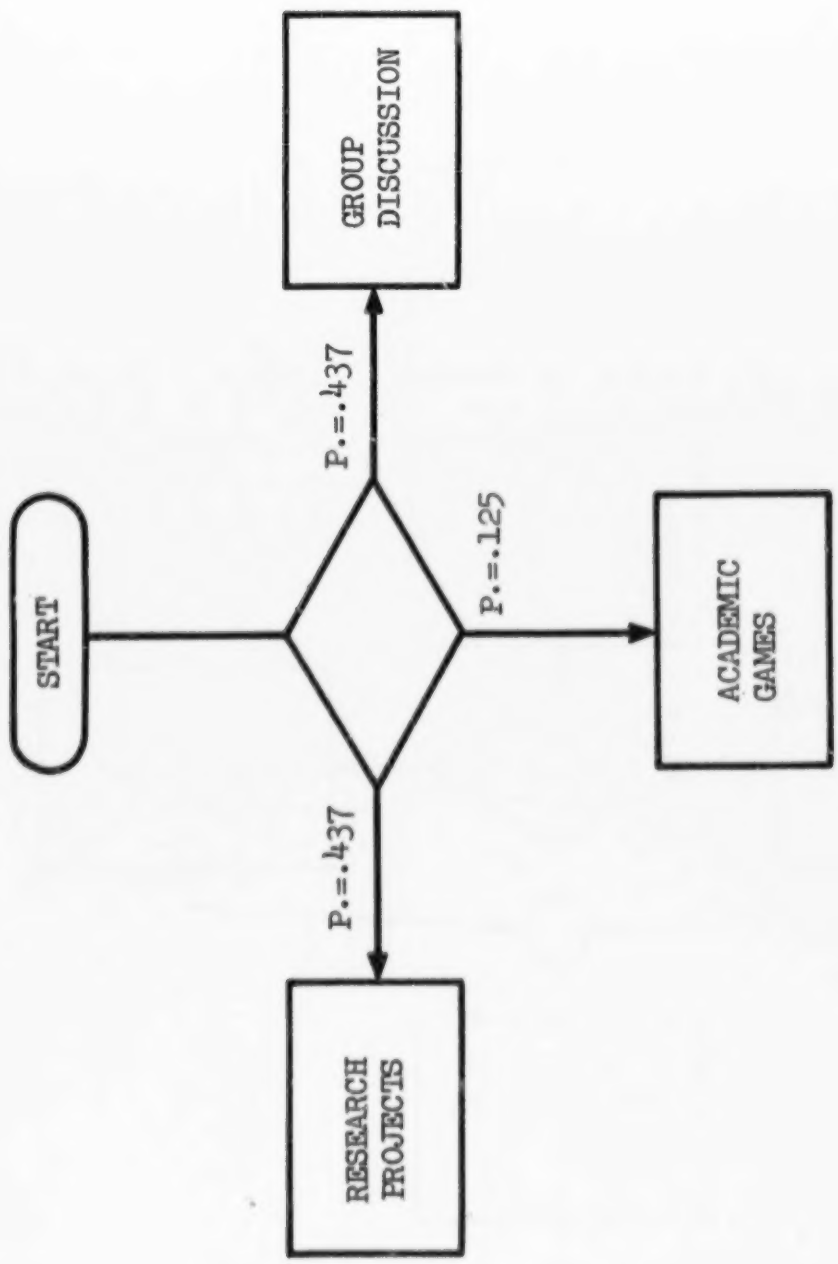

Figure 2. Flow of Activities in Small Group Work

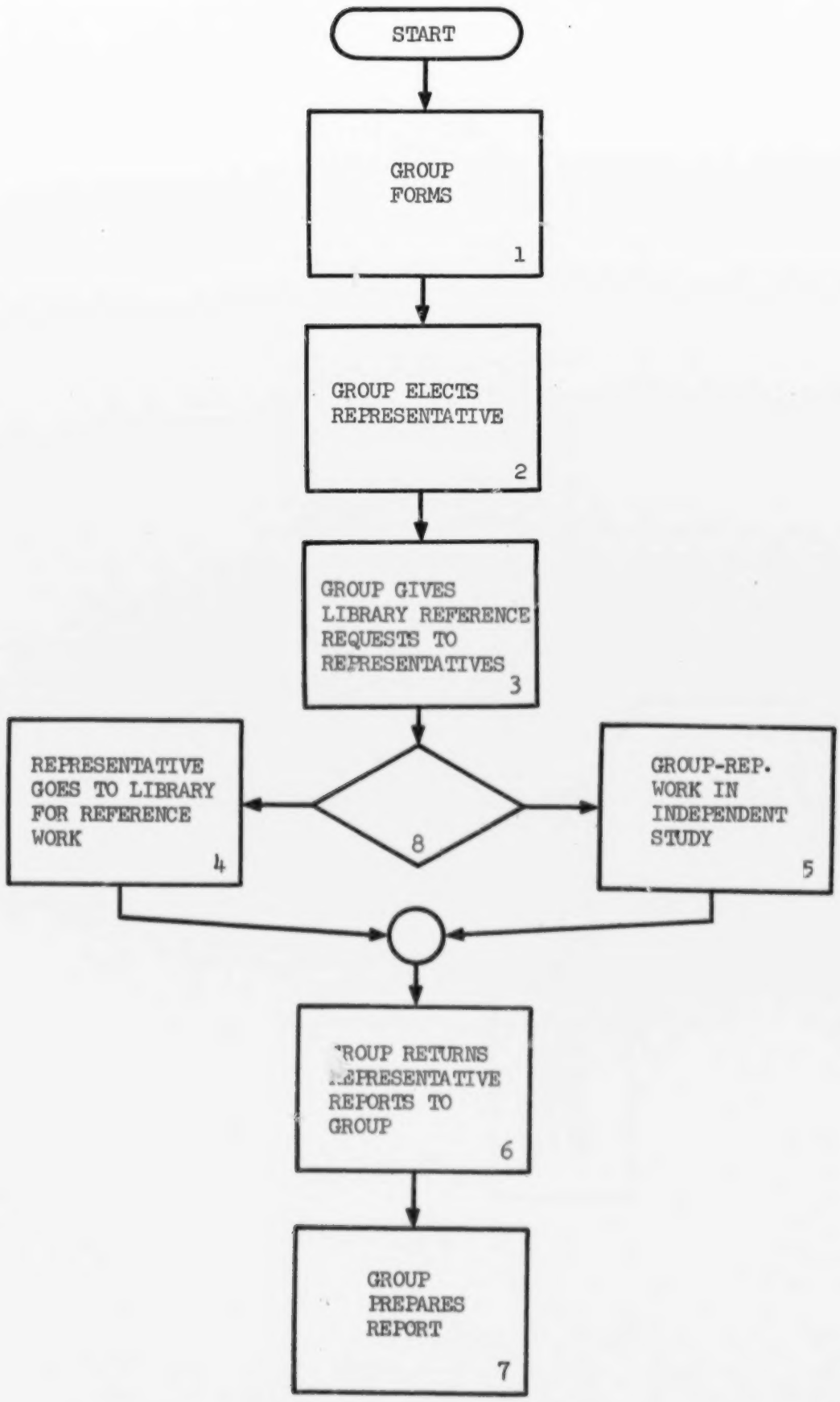

Figure 3. Flow of Activities in Group Research Work.

participate in the seminar group, he may elect to work in depth on his own. In this case, he may work ahead of the class at his own rate on the regular course content and he can work on a light research project related to his own interests.

The seminar groups work with the teacher in selecting items of interest for depth study. The students may or may not select a leader of the group. They meet every day and decide what they want to do. They may choose to spend the time reading independently or they may carry on a discussion of some topic. These special students are free to use the library at the junior college. Tests given to students in special subgroups are always of the essay rather than the objective type.

C. MEDIA USED IN THE GROUPS

The following media are used in the course for presentation of course-related information: films presented via closed-circuit television (CCTV), filmstrips, audio tapes, presentation of video taped programs, academic games, and visual materials prepared by the Graphic Arts Department. In addition to the special media, each student is assigned a book for the course; in addition, a supply of books is available for reading in the classroom. Students may also purchase pocket editions from a wide selection of choices at the school. Extra media resources for use in the learning resource laboratory are described in the introductory volume in this series.

1. Film Presentation

A film is shown approximately every two or three weeks. The films vary in length from 11 to 25 minutes.

Films are obtained from the Broward County School District Film Library. The teachers select films from a list supplied by the County Film Library. An attempt is made to obtain the film a few days in advance of the time scheduled for presentation so the teachers can conduct a preview. If films arrive too late for preview or for presentation at the scheduled time, they are previewed by the teachers for possible use next year. The time for presentation of the film is scheduled several weeks in advance. The teacher schedules the film through the librarian. The film can be shown in class via conventional projector or arrangements made to show via CCTV. On the day that the film is scheduled to be shown by CCTV the teacher calls Mr. Dale and tells him when he is ready for presentation.

As is usually the case, films are, at the first of the school year, somewhat difficult to obtain. However, because Nova is organized on a trimester plan, and the other schools are organized on a semester basis, a gap soon develops between where Nova classes are in their course work and where classes in other schools are, so that as the school year progresses, films are easier to obtain.

The Social Studies department originally planned to obtain the films well in advance so that they could video tape them and use the video tapes for presentation. However, legal barriers have prevented this procedure.

2. Use of Audio Tapes

When the course was organized for Continuous Progress Plan, all lectures were taped and made available on cartridge for individual listening. The lectures were recorded by arranging with Mr. Carls to record the lecture via the intercom system at the time the lecture was being delivered. The students could listen to the lectures by calling up the tape by dial selection from the study carrel in a learning resource center. Recordings of lectures were discontinued because the teaching staff felt that the lectures were degraded without the accompanying visual aids and because the Continuous Progress Plan was discontinued. This procedure may be restarted in the future for students who have missed lectures or for special students who are allowed to work ahead of the group.

The "Campus Library Tapes" in American History are available and can be used by individual students both for review and as an introduction to units.

3. Video Tape Presentation

Video tapes are used primarily to record lectures or discussions with special visitors to the school or to the area. These video tapes are later played back to the classes. The legal barriers and the costs of video tapes prohibits extensive use of this service for recording and storing lectures and films.

4. Specially Prepared Visual Displays

A graphic artist is available for preparing visual displays requested by the teachers to be presented to classes via the overhead projectors that are available in each classroom. He also keeps a file of visual aids that are available. However, this service is in such demand that the requestor has a long waiting period and must have the lecture prepared well in advance of the time for presentation. If the request for the visual is "rush," the graphic artist will prepare the visuals while the instructor waits, but obviously this "rush" service cannot be generally provided. The people in the Social Studies Department feel that the graphic arts service is used mostly by personnel in the Language Arts Building, because the Graphic Arts facility is in that building.

5. Filmstrips

Although filmstrips are available, none of them are with sound. The teachers feel that a lecture with other types of visual displays is preferable to the filmstrip.

6. Books

Each student is assigned an American History textbook. In addition, 100 books on economics, 100 books on government, and 100 books on history are available for class use. These books are stored on a cart which is wheeled from class to class. Books are controlled by requiring students to sign out for them.

7. Microfilm

Minimal use has been made of the microfilm service because not enough machines are available for viewing documents.

D. INFORMATION-PROCESSING PROCEDURES

Semiautomated procedures are used for attendance accounting and test scoring.

1. Attendance Accounting

This will be the first year that attendance will be taken during the first period of the day. Previously, attendance was taken during the first part of the second period, because some of the students arrived on late buses. The procedure until this year has been:

- Students sat in seats that have been assigned to them.
- A teaching assistant, teaching aid or student assistant checked the empty seats against the seating chart.
- A student was sent to the central office to report the list of absentees and their student number.
- IBM cards with the student names were pulled.
- The list of absentees was printed with EAM accounting machinery.
- The list was sent to the administrative office for use.

2. Test Scoring and Evaluation Procedures

Three kinds of tests are administered in 10th-grade social studies--unit quizzes, unit tests and essay tests for seminar students.

The essay tests are read, scored, and graded by the teacher; the unit quizzes are objective tests which are scored by a teaching aide.

The plan at the beginning of the school year was to require a grade of four or higher on the unit quiz before a student could qualify for the unit test. The student could take three forms of the unit quiz before he would be forced to take the unit test. Actual practice did not conform to the plan. Four units involved only one quiz for all students; one unit included two quizzes, one unit had three quizzes, and four units had no quiz.

The unit tests are scored by computer. The procedure is as follows:

- Students record their responses to test items on a mark sense card. Each card provides space for as many as 100 five-choice multiple choice answers.

- Arrangements are made for scoring of tests by computers in the county offices in advance.

- The test cards are delivered to the data processing center with the keys for scoring.

- A computer program scores the tests and provides the following data: (1) the number of items answered correctly by each student; (2) the number of items answered incorrectly by each student; (3) the answers that were selected on all wrong responses for each student; (4) for each item in the test the number of correct and incorrect responses; and (5) the class average and standard deviation.

- These data are usually returned to the teacher several days after they are sent to the data processing center if arrangements for test scoring have been made in advance.

When the teachers receive the test scoring data printouts, they establish the grading procedures and assign a grade in the form of a stanine score from 1-9 on the test.

E. USE OF SPACE

Most of the instruction in 10th-grade social studies takes place in large lecture halls because of the large number of students in each class. Students usually organize for small group work by meeting in different areas of the large lecture hall. Independent study is done by the students at their seats in the large lecture hall. Learning resource areas are available to students only on an individual basis, because there are too many students. Only appointed representatives of groups within the class can go to the resource center for materials.